CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

An ISO 9001:2008 Certified Company

NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

Job No.: CTCE/BBMP/W.No.10/KRIDL/CEMENT/2014-15

Date: 15.07.2014

TEST REPORT

CLIENT	:	**Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.
AGENCY	:	**Technical Manager,** KRIDL, Bangalore.
NAME OF THE WORK	:	Improvements to roads and drains at Kalpavruksha Layout in Ward No.10, BBMP, Bangalore.
REFERENCE	:	EE/BTP/KRIDL/W.O/466/2013-14 Dated: 21.02.2014
SAMPLE ID	:	CEMENT
SAMPLES SUPPLIED BY	:	AGENCY

The results of the tests conducted on the cement sample are as follows:

Sl.No	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 1989-2013
1	Standard Consistency	IS-4031 (Part -4)	29.00 %	-
2	a) Initial Setting Time	IS-4031 (Part -5)	165 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part -5)	475 Minutes	Not More than 600 Minutes
3	Soundness by the Le-Chatelier method	IS-4031 (Part 3)	1 mm	Not more than 10 mm

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Job No.: CTCE/BBMP/W.No.10/KRIDL/SAND/2014-15 : 15.07.201

TEST REPORT ON FINE AGGREGATES
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.

Agency : **Technical Manager,** KRIDL, Bangalore.

Name of Work : Improvements to roads and drains at Kalpavruksha Layout in Ward No.10, BBMP, Bangalore.

Reference : EE/BTP/KRIDL/W.O/466/2013-14 Dated: 21.02.2014

Date of Testing : 15.07.2014

Material : Sand Total Wt. of Aggregates in gms **1000**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits For Zone-II
10	0	0	0	100	100
4.75	45	4.50	4.50	95.5	90-100
2.36	169	16.90	21.40	78.6	75-100
1.18	215	21.50	42.90	57.1	55-90
600 Micron	185	18.50	61.40	38.6	35-59
300 Micron	155	15.50	76.90	23.1	8-30
150 Micron	180	18.00	94.90	5.1	0-10

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Job No.: CTCE/BBMP/W.No.10/KRIDL/AGG/2014-15 : 15.07.20

TEST REPORT ON COARSE AGGREGATES
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.

Agency : **Technical Manager,** KRIDL, Bangalore.

Name of Work : Improvements to roads and drains at Kalpavruksha Layout in Ward No.10, BBMP, Bangalore.

Reference : EE/BTP/KRIDL/W.O/466/2013-14 Dated: 21.02.2014

Date of Testing : 15.07.2014

Material : 40mm Aggregates

Total Wt. of Aggregates in gms **10000**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits
80	0	0	0	100	100
40	400	4.00	4.00	96.00	95-100
20	5840	58.40	62.40	37.60	30-70
10	2250	22.50	84.90	15.10	10-35
4.75	1310	13.10	98.00	2.00	0-5

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Job No.: CTCE/BBMP/W.No.10/KRIDL /STEEL/2014-15 17.07.2014

TEST REPORT ON REINFORCEMENT STEEL

Client	:	**Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.
Agency	:	**Technical Manager,** KRIDL, Bangalore.
Name of the Work	:	Improvements to roads and drains at Kalpavruksha Layout in Ward No.10, BBMP, Bangalore.
Reference	:	EE/BTP/KRIDL/W.O/466/2013-14 Dated: 21.02.2014
Date of Test	:	17.07.2014
Technical Reference	:	IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm^2	Tensile strength (Ultimate stress) N/mm^2	Elongation percent gauge length		
1	8	0.40	510	552	13.10	O.K	O.K

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TEST REPORT ON REINFORCEMENT STEEL

Client	:	**Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.
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Technical Reference	:	IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm^2	Tensile strength (Ultimate stress) N/mm^2	Elongation percent gauge length		
1	10	0.62	513	556	13.30	O.K	O.K

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Job No.: CTCE/BBMP/W.No.10/KRIDL/CUBE/2014-15 18.08.2014

TEST REPORT ON CONCRETE CUBES

Client	: **Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.
Agency	: **Technical Manager,** KRIDL, Bangalore.
Name of the work	: Improvements to roads and drains at Kalpavruksha Layout in Ward No.10, BBMP, Bangalore.
Reference	: EE/BTP/KRIDL/W.O/466/2013-14 Dated: 21.02.2014
Sample ID	: RCC Drain Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{20}
Compressive Strength as on	: 28th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	21.07.2014	18.08.2014	8.125	475.5	21.13
2	21.07.2014	18.08.2014	8.265	502.5	22.33
3	21.07.2014	18.08.2014	8.390	516.3	22.95

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TEST REPORT ON CONCRETE CUBES

Client	: **Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.
Agency	: **Technical Manager,** KRIDL, Bangalore.
Name of the work	: Improvements to roads and drains at Kalpavruksha Layout in Ward No.10, BBMP, Bangalore.
Reference	: EE/BTP/KRIDL/W.O/466/2013-14 Dated: 21.02.2014
Sample ID	: RCC Drain Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{20}
Compressive Strength as on	: 28th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	23.07.2014	20.08.2014	8.198	480.5	21.36
2	23.07.2014	20.08.2014	8.260	502.2	22.32
3	23.07.2014	20.08.2014	8.350	519.3	23.08

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